



UNITED STATES PATENT AND TRADEMARK OFFICE

K.D

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,599	12/13/2001	Thomas R. Neuenschwander	LHC0091-08	5277
832	7590	02/18/2004	EXAMINER	
BAKER & DANIELS 111 E. WAYNE STREET SUITE 800 FORT WAYNE, IN 46802			TAMAI, KARL I	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

4.8

Office Action Summary	Application No.	Applicant(s)	
	10/022,599	NEUENSCHWANDER, THOMAS R.	
	Examiner	Art Unit	
	Tamai IE Karl	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/12/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. The objection to Claim 44 is withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 36, 37, and 40-44 are rejected under 35 U.S.C. 102(a) as being anticipated by Kuriyama et al. (Kuriyama)(JP 10-163051). Kuriyama teaches a cylindrical stack 1 which is substantially circular in cross section having rectangular laminations with interlocks 25. The stack having first laminations B and progressively narrower laminations A and C. The narrow end surfaces having notches 27 which are substantially perpendicular to the widths and lengths of the lamination to prevent shifting of the laminations during assembly, with the top lamination does not have projections to secure it to the core. Kuriyama teaches the outer interlocks (seen in figure 4), near the narrow end surfaces.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2834

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuriyama et al. (Kuriyama)(JP 10-163051), in further view of Allen et al.(Allen)(US 5,777,537). Kuriyama teaches every aspect of the invention except, the length of the lamination is along the grain. Allen teaches a laminated core having the grain oriented along the flux path and the laminations are coated to provide insulation (inherently dielectric) from one another to reduce conductivity between the laminations. It would have been obvious to a person skilled in the art at the time of the invention to construct the laminated core of Kuriyama with the laminations coated with a dielectric because Allen teaches that insulating the laminations reduced losses from core losses from conductivity between the laminations.

6. Claims 40 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sliwiak (US 2,671,951) and Steiner (US 5,627,424). Sliwiak teaches a laminated core with interlocking tabs/slots near the ends and protrusion on the narrow ends. Sliwiak does not teach the core being cylindrical (squared laminations) or notches on both ends of the core. Steiner teaches the narrow end are of the lamination are squared with either an end protrusion 39 or tab 41 on a substantially cylindrical core, to mount cylindrical coils (col 10, line 23). The cylindrical core having decreasing width laminations ro. It would have been obvious to a person of ordinary skill in the art at the

Art Unit: 2834

time of the invention to construct the core of Sliwiak with the protrusion or groove of Steiner to provide a low cost and improved method of production, and with grooves at both ends because Steiner teaches that the either protrusion 39 or a groove 41 can be formed in the cylindrical lamination for easy assembly of the core and coil, where it is within the ordinary skill in the art to choose between known equivalents.

7. Claims 36, 37, 41, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sliwiak (US 2,671,951) and Steiner (US 5,627,424), in further view of Merlano (US 5,671,526) and Burns (US 1,182,636). Sliwiak and Steiner teach every aspect of the invention except the core being cylindrical and the end lamination not having a tab or slot. Merlano teaches the end lamination not having a tab (see figure 13, also col. 4. line 40) to provide nesting and lateral friction of the laminations. Burns shows the cross section of the core is cylindrical to receive a cylindrically wound coil. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the core of Sliwiak and Steiner with the end lamination not having a tab to allow nesting with lateral friction, and with the cylindrical core of Burns to allow use of a cylindrically wound coil.

Claims 43 and 44 are rejected as a product by a process claims as merely being process claims to produce the product set forth as above. See MPEP 2113.

8. Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sliwiak (US 2,671,951), Steiner (US 5,627,424), Merlano (US 5,671,526) and Burns (US 1,182,636), in further view of Allen et al.(Allen)(US 5,777,537). Sliwiak,

Art Unit: 2834

Steiner, Merlano, and Burns teach every aspect of the invention except, the length of the lamination is along the grain. Allen teaches a laminated core having the grain oriented along the flux path and the laminations are coated to provide insulation (inherently dielectric) from one another to reduce conductivity between the laminations. It would have been obvious to a person skilled in the art at the time of the invention to construct the laminated core of Sliwiak, Steiner, Merlano, and Burns with the laminations coated with a dielectric because Allen teaches that insulating the laminations reduced losses from core losses from conductivity between the laminations.

Response to Arguments

9. Applicant's arguments filed 12/12/03 have been fully considered but they are moot in view of the new ground of rejection. The Applicant's argument regarding motivation/hindsight to combine is not persuasive. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to

Art Unit: 2834

produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation comes directly from the references themselves (as set forth above), not from the examiner. It is obvious to have a cylindrical cross section core to mount cylindrical coils and bobbins, see Steiner, Col. 10, line 23 and Burns line 104. Both Steiner and Merlano teach the narrow end of the core having either a tab or a groove to interlock the core with another core for easy assembly with reduce costs. Merlano teaches the end lamination not having a tab (see figure 13, also col. 4. line 40) to provide nesting and lateral friction of the laminations. The combination is proper and maintained because the motivation comes from the references themselves. The Applicant's argument that Steiner does not teach grooves on both narrow surfaces is not persuasive because Sliwiak teaches interlocking members on both narrow surfaces. The Applicant's argument regarding the intended use of the groove for production of the device is not persuasive because the method of making limitations and intended use do not have patentable weight in the apparatus claims. The Applicant has already patented the method of making in patent 6163949 and 6195875, as well as pending application 10/022783. The Applicant's arguments regarding the process of making steps are not persuasive because the patentability of the product does not depend on its method of production, (see *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) holding that the product in the product by process

Art Unit: 2834

claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number at (571) 272 - 2036.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nestor Ramirez, can be reached at (571) 272 - 2034. The facsimile number for the Group is (703) 872 - 9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karl I Tamai
PRIMARY PATENT EXAMINER
February 6, 2004

KARL TAMAI
PRIMARY EXAMINER

